

Tap Drill Sizes

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Engineering Reference · Tap Drill Sizes

47 catalogued sizes, dimensioned to ISO 2306 (reference). Pick any row and the technical drawing redraws to it.

Tap Drill Sizes to ISO 2306 (reference) are catalogued in sizes M1 to M64, with pitch 0.25-6 mm. 47 sizes are held in the table below, and the technical drawing redraws to whichever row you select.

Standard

ISO 2306 (reference)

Size range

M1-M64

Pitch

0.25-6 mm

Catalogued sizes

47

Dimensions are nominal values from the governing standard. Confirm the tolerance class for your application before ordering.



Tap Drill Sizes (ISO 2306 (reference)) are a type of engineering reference used across industrial assembly. Below is the complete size table together with material, standard and application guidance.

About This Reference

This is an engineering reference table for tap drill sizes based on ISO 2306 (reference). Use it alongside our fastener catalog when selecting and specifying parts.

Reference Data (ISO 2306 (reference))

Thread size	Pitch (mm)	Drill 75% thread (mm)	Drill 50% thread (mm)	Description
M1	0.25	0.75	0.8	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M1.2	0.25	0.95	1.0	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M1.4	0.3	1.1	1.15	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M1.6	0.35	1.25	1.3	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M1.8	0.35	1.45	1.5	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M2	0.4	1.6	1.65	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M2.5	0.45	2.05	2.1	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M3	0.5	2.5	2.55	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M3.5	0.6	2.9	2.95	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M4	0.7	3.3	3.4	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M4.5	0.75	3.7	3.8	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M5	0.8	4.2	4.3	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M6	1.0	5.0	5.1	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M7	1.0	6.0	6.1	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M8	1.25	6.8	6.9	Hand tapping: 75%; machine tapping 50% to reduce tool wear

Thread size	Pitch (mm)	Drill 75% thread (mm)	Drill 50% thread (mm)	Description
M8	1.0	7.0	7.1	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M9	1.25	7.8	7.9	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M10	1.5	8.5	8.7	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M10	1.25	8.8	8.9	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M11	1.5	9.5	9.7	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M12	1.75	10.2	10.4	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M12	1.5	10.5	10.7	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M14	2.0	12.0	12.2	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M14	1.5	12.5	12.7	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M16	2.0	14.0	14.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M16	1.5	14.5	14.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M18	2.5	15.5	15.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M18	1.5	16.5	16.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M20	2.5	17.5	17.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M20	1.5	18.5	18.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M22	2.5	19.5	19.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear

Thread size	Pitch (mm)	Drill 75% thread (mm)	Drill 50% thread (mm)	Description
M22	1.5	20.5	20.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M24	3.0	21.0	21.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M24	2.0	22.0	22.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M27	3.0	24.0	24.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M30	3.5	26.5	26.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M30	2.0	28.0	28.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M33	3.5	29.5	29.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M36	4.0	32.0	32.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M39	4.0	35.0	35.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M42	4.5	37.5	37.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M45	4.5	40.5	40.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M48	5.0	43.0	43.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M52	5.0	47.0	47.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M56	5.5	50.5	50.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M60	5.5	54.5	54.75	Hand tapping: 75%; machine tapping 50% to reduce tool wear
M64	6.0	58.0	58.25	Hand tapping: 75%; machine tapping 50% to reduce tool wear

Inside the plant

Manufactured in our own plant

This part is cold-formed, threaded, heat-treated and finished in-house. The stages below are where its class and finish are actually decided.

1.



01

Cold heading

Wire rod is drawn to size and cold-formed into blanks. Forming rather than cutting keeps the grain flow continuous around the head, which is where a bolt is most likely to fail.

Head dimensions and under-head radius checked at set-up and per shift.



2.

02

Thread rolling

Threads are rolled between hardened dies rather than cut. Rolled threads are stronger in fatigue than cut threads and hold pitch and flank angle far more consistently across a batch.

Go / no-go ring gauges to ISO 965 tolerance class 6g.

3.



03

Heat treatment

Quench-and-temper brings carbon and alloy steel to the property class ordered — 8.8, 10.9 or 12.9 — with the furnace charge tracked so a finished lot can be traced back to it.

Core hardness and tensile tested per lot to ISO 898-1.

4.



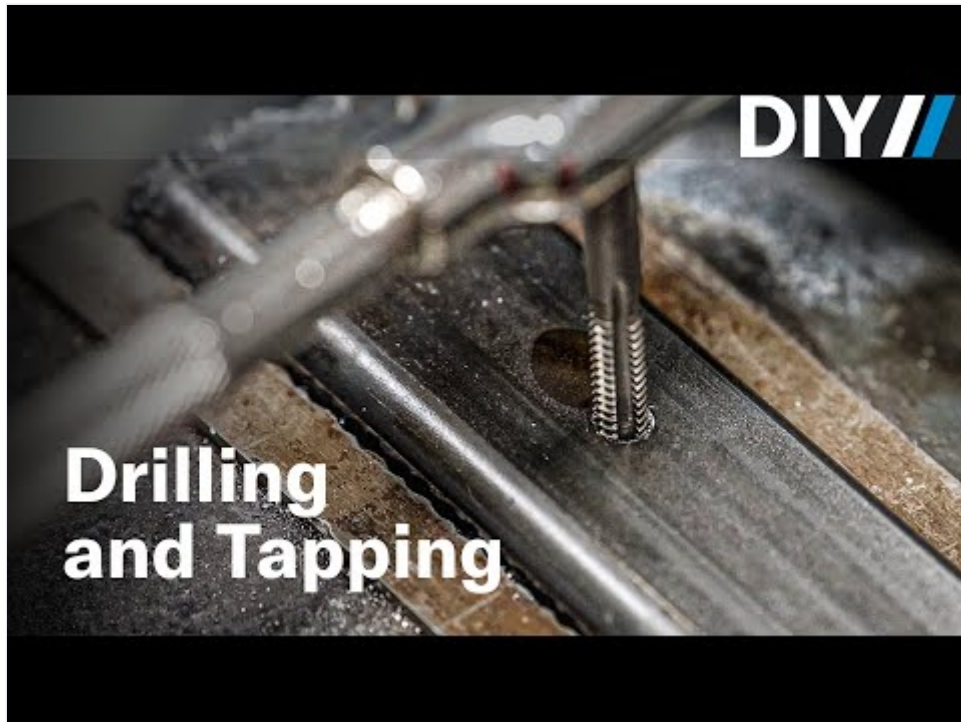
04

Surface treatment

Zinc, zinc-nickel, hot-dip galvanizing, black oxide, phosphate and Dacromet, selected against the service environment rather than against the price list.

Coating thickness and neutral salt spray hours to ISO 9227.

Video: Tap Drill Sizes



► Watch video: <https://www.youtube.com/watch?v=Nv4hh4bjxb4>

[Everything you need to know about drilling and tapping holes | DIY](#)

Third-party video, selected automatically for this topic. It is not produced by Engineering Hardware and is not a specification source — use the tables on this page for dimensional data.

Frequently Asked Questions

What does the Tap Drill Sizes reference table cover?

Tap Drill Sizes is an engineering reference table aligned with ISO 2306 (reference). Use the values alongside our fastener catalog when selecting and specifying parts.

How do I request a quotation?

Use the parametric drawing on this page to set the exact configuration (size, material, finish) and click "Request this configuration" — a specialist from Engineering Hardware will respond within one business day.

More Engineering Reference

[← Previous](#)[Metric Fine Thread DimensionsISO 724](#)[Next →](#)[Clearance Hole SizesISO 273](#)